

Applicant : Khosravi, et al.
Appl. No. : 09/427,260
Examiner : B. Pelegriño
Docket No. : 702563.4004

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1-28 (Cancelled)

29. (Previously Amended) A stretchable stent, comprising:

a coiled-up sheet having overlapping inner and outer longitudinal sections extending generally parallel to a longitudinal axis thereof, the coiled-up sheet being expandable between a contracted condition and one or more enlarged conditions, the coiled-up sheet defining a periphery in a plane substantially perpendicular to a longitudinal axis thereof;

F₁ a plurality of locking elements extending from the inner longitudinal section for engaging openings in the outer longitudinal section to selectively secure the coiled-up sheet in the one or more enlarged conditions; and

a plurality of stretchable elements formed in the coiled-up sheet, the stretchable elements having a shape memory such that the stretchable elements are plastically deformable towards an unstretched condition at a temperature at or below about 25 degrees Celsius, and biased to expand about the periphery from the unstretched condition towards a stretched condition when exposed to a temperature at or above body temperature;

wherein each stretchable element comprises a pair of peripherally expandable wing-like elements extending generally parallel to the longitudinal axis.

Applicant : Khosravi, et al.
Appl. No. : 09/427,260
Examiner : B. Pelegriano
Docket No. : 702563.4004

30. (Original) The stretchable stent of claim 29, wherein the stretchable elements define a multi-cellular structure with peripherally adjacent stretchable elements being connected at a point intermediate the pair of wing-like elements.

Claims 31-54 (Cancelled).

55. (Previously Added) A stretchable stent, comprising:

a coiled-up sheet having overlapping inner and outer longitudinal sections extending generally parallel to a longitudinal axis thereof, and defining a periphery, the coiled-up sheet being unrollable between a contracted condition and one or more enlarged conditions; and

FI
Cond
a plurality of stretchable cells formed in the coiled-up sheet, each stretchable cell comprising a pair of peripherally expandable wing-like elements extending generally parallel to the longitudinal axis, the wing-like elements being expandable about the periphery between an unstretched condition to facilitate placement in a delivery device in the contracted condition and a stretched condition to facilitate expansion of the coiled-up sheet to the one or more enlarged conditions upon deployment from the delivery device.

56. (Previously Added) The stretchable stent of claim 55, further comprising a plurality of locking elements extending from the inner longitudinal section for engaging openings in the outer longitudinal section to selectively secure the coiled-up sheet in the one or more enlarged conditions.

Applicant : Khosravi, et al.
Appl. No. : 09/427,260
Examiner : B. Pelegriño
Docket No. : 702563.4004

57. (Previously Added) The stretchable stent of claim 55, wherein longitudinally adjacent cells are connected to one another at respective tips of opposing wing-like elements.

58. (Previously Added) The stretchable stent of claim 55, wherein each wing-like element comprises a pair of longitudinal elements defining an undulating pattern.

59. (New) An expandable stent comprising:

a coiled-up sheet having overlapping inner and outer longitudinal sections extending generally parallel to a longitudinal axis thereof, the coiled-up sheet being expandable between a contracted condition and one or more enlarged conditions, the coiled-up sheet defining a periphery in a plane substantially perpendicular to a longitudinal axis thereof;

and

a plurality of stretchable elements formed in the coiled-up sheet, wherein each stretchable element comprises a pair of peripherally expandable wing-like elements extending generally parallel to the longitudinal axis.

60. (New) The expandable stent of claim 59, further comprising:

a plurality of locking elements extending from the inner longitudinal section for engaging openings in the outer longitudinal section to selectively secure the coiled-up sheet in the one or more enlarged conditions.

Applicant : Khosravi, et al.
Appl. No. : 09/427,260
Examiner : B. Pelegriño
Docket No. : 702563.4004

61. (New) The expandable stent of claim 59, wherein the stretchable elements have a shape memory such that the stretchable elements are plastically deformable towards an unstretched condition at a first temperature, and biased to expand about the periphery from the unstretched condition towards a stretched condition when exposed to a temperature at or above a second temperature.

L¹
Cancel 62. (New) The expandable stent of claim 61, wherein said first temperature is at or below about 25 degrees Celsius, and said second temperature is body temperature.
